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## Marine Life Protection Act Initiative




### Marine Birds and Marine Mammals Evaluation Updates and New Approaches for Round 2

Presentation to the MLPA Master Plan Science Advisory Team  
May 12, 2010 • Webinar


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## Updates - Marine Mammal Analyses



- Classified harbor seal rookeries
- Refined pinniped haulout locations
- Refined gray whale summer foraging data
- Provided at-sea hotspots




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## Updates - Marine Bird Analyses

- Updated Table 9.2: Proposed activities that will qualify or disqualify an SMCA for inclusion in each seabird analysis
- Pelican roost size classifications based on maximum counts
- Discussed new approaches for approval
  - Neritic foraging analysis
  - Waterfowl analysis
  - Shorebird analysis

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## Neritic Foraging Analysis Approach

- Report for seven groups of species
  - Loons, Grebes, and Scoters
  - Pigeon Guillemots and Pelagic Cormorants
  - Marbled Murrelets
  - All other seabirds
  - All pinnipeds
  - Harbor Porpoise
  - Gray Whales
- Report on area of overlap between hot spots and proposed marine protected areas and density
- Hot spots identified as areas with top 10% density for each group of species

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## Waterfowl Analysis Approach

- Report by groups of species
  - Dabbling Ducks
  - Diving Ducks
  - Geese
  - Sea Ducks
  - Shorebirds
  - Swans
- Based on maximum winter counts
- Analysis will be based on the diversity and relative numbers of these birds that are represented in proposed MPA's



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## Shorebird Analysis Data

- Data limited to Humboldt Bay
- Migratory and wintering shorebirds
- 19 survey sites


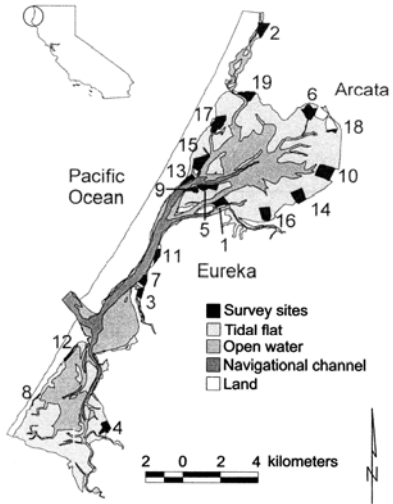
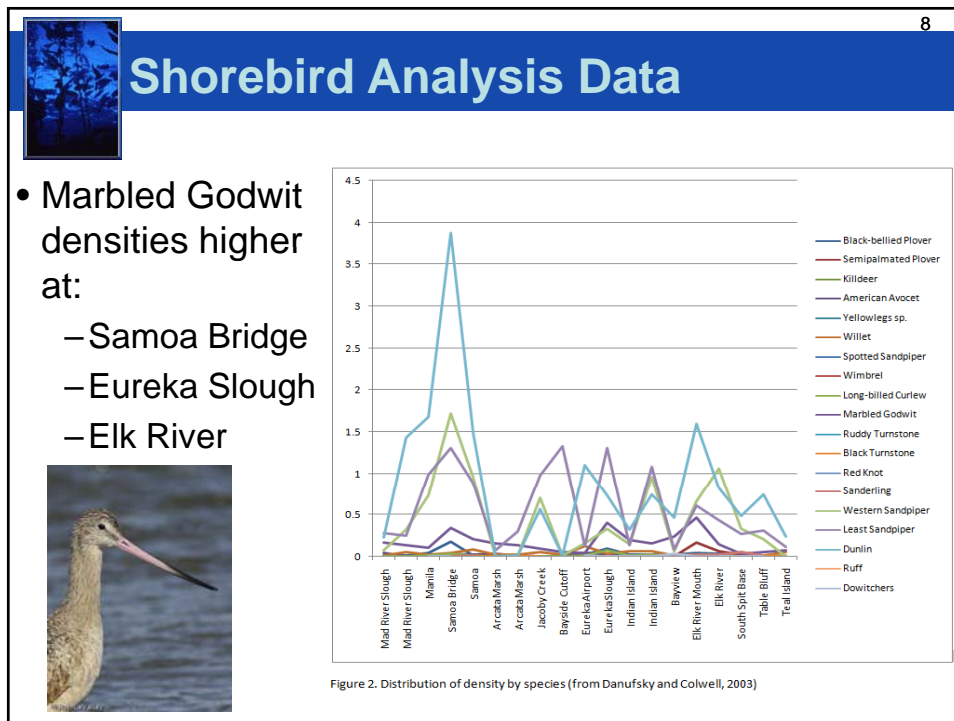
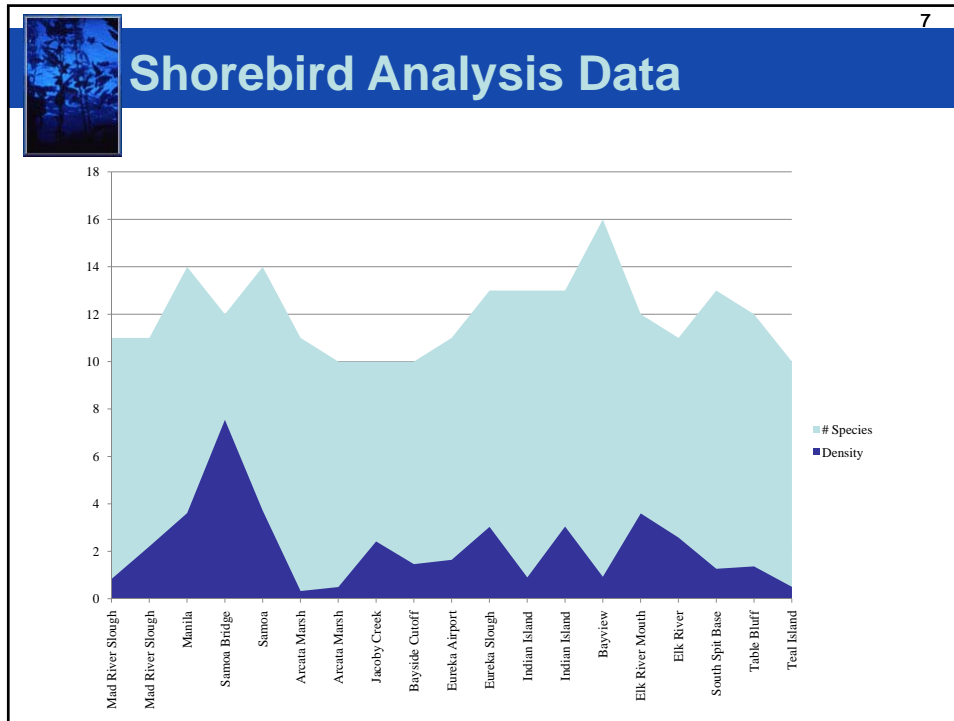



FIGURE 1. Locations of shorebird study sites and extent of tidal flats on Humboldt Bay, California, at mean lower low water. Site numbers correspond to those given in the Appendix.





## Shorebird Analysis Approach

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- Number of survey sites in proposed MPAs in Humboldt Bay will be reported
- Species density and diversity will be reported for each proposed MPA containing a survey site
- Proposed MPAs that capture one of the three higher density Marbled Godwit areas will be noted
- Proposed MPAs that capture the western shore of Arcata Bay will be noted
- Proposals will be compared to one another based on species density and diversity



## Potential SAT Action

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- Approve evaluation approaches for:
  - Identifying hot spots for neritic foraging analysis
  - Waterfowl analysis
  - Shorebird analysis